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## From Swimming Skill to Water Competence: A Paradigm Shift

Robert Keig Stallman

Norwegian School of Sport Science, Lifesaving Foundation, Tanzanian Lifesaving Society, Norwegian Lifesaving Society, robert\_keig@yahoo.com

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## Guest Editorial

The lead article in this issue entitled “From Swimming Skill to Water Competence: Toward a More Inclusive Drowning Prevention Future” addresses the concept of “water competence” as a paradigm shift in how to view swimming and drowning prevention (Stallman, Moran, Quan, & Langendorfer, 2017). The very title, “From – To,” indicates an important, but gradual shift in focus over time. This has not been an abrupt change in our approach to the teaching of swimming as an essential drowning prevention intervention; it has evolved over more than a century.

As a newly-trained swimming instructor in three different organizations in the late 1950s and early 1960s, I recall being quite frustrated by the noticeable differences in the teaching practices of the three aquatic agencies I represented. I looked for, but struggled to find, commonalities. Yes, there were some, but it seemed there were far more differences. I naturally found myself asking “why?” behind the many differences. I began to search for some common ground or a unifying philosophy. I reasoned that “kids are kids and water is water” anywhere in the world and that they ought to be taught similar skills in similar ways. What I failed to understand at that time was the lack of a scientific, evidence-based foundation for the teaching of swimming.

In my youthful naiveté, I found myself searching for a common definition for “swimming.” I was at the “from” period in my own development. Fortunately, I did discover similarities in the general philosophy of teaching swimming for these three humanitarian organizations. They all supported the idea of promoting a broad, all-around development of aquatic skills, termed “watermanship.” And they all understood that swimming and water safety skills should serve as a foundation for drowning prevention. Unfortunately, the details of what skills and activities should be taught and how these should be presented remained frustratingly different across programs; their shared water safety philosophy faded into the background. I became obsessed with trying to find reasons for what should be taught and especially as rationale for why they were important.

During my search for a universal definition of swimming, I began to understand that some organizations and persons had other motives for choosing what they taught. Many either intentionally ignored or were naively unaware of the importance of developing ‘all-around aquatic capability’ (a.k.a., “watermanship”) and that preventing drowning ought to be an integral part of all programs and teaching progressions. Drowning prevention was generally treated in a superficial manner, subservient to outcomes such as developing competitive swimmers. In almost all cases, tradition ruled: the content and practices in learn-to-swim were handed down generation-to-generation largely intact. Like the weather, “everyone talked about it, but no one did anything about it.”

As a consequence, many programs and instructors, then and still today, regarded the teaching of strokes as the definitive essence of swimming and considered only the propulsive actions of the arms and legs to perform strokes to be important. During the past several decades, this unhealthy obsession with strokes and competitive swimming has led more and more aquatic programs to focus almost exclusively on teaching the four primary strokes used in competition. This trend has become so severe that many aquatic programs have begun calling the front crawl “freestyle” which strictly speaking is a competitive event, not a stroke.

Moreover, most instructors and programs were and still are convinced that there is an absolute “correct” way to use the limbs in creating propulsion. Instructors and programs continue

to be so preoccupied with “error correction” as the starting point for evaluating every swimmer’s stroke that “errors” and “swimming properly” have become an unexamined part of the language of swimming and learn-to-swim. It is so pervasive that virtually all actions demonstrated by beginners are assumed to be “wrong.” Instructors presume that a primary part of their job is to expunge swimmers’ errors so that they will swim “correctly” (Langendorfer, 2015).

In my quest, I realized that few programs and instructors even bothered to define what it meant “to be able to swim.” A few pioneers had attempted to identify “basic skills” (e.g., McGraw, 1939), focusing on principles from motor learning and human motor development. Others (e.g., T.K. Cureton, Jr., 1934; United States Naval Institute, 1944) did advocate for the need to develop all-around aquatic skills while considering that acquisition of such skill related to health and safety. Prof. Thomas Cureton Jr., a scientist, aquatic pioneer, and lifelong champion swimmer who was far ahead of his time, as early as 1934 wrote, “Ultimately, we should heed the facts uncovered by research . . . . to rest upon a philosophy with such a scientific background” (Cureton, 1934, preface, p. x). The United States Navy wrote, “But the war has altered the needs and thus has changed the emphasis. Versatility is to be desired, long distance strokes which make minimum energy demands have become musts, special skills to prepare to meet specific dangers are now considered necessary to everyone and the information which accompanies instruction is of a new and practical nature” (United States Naval Institute, 1944, p. 87). More recently, the International Lifesaving Federation published a document describing “basic survival skills” (2015).

Upon arriving in Scandinavia in the late 1970s, I discovered that the northern European languages, especially Scandinavian languages, had a single word which denoted “can swim.” When I naively asked how “can swim” was defined, I discovered that my host country of Norway actually had 4 or 5 different definitions, each tied to a different organization and their aquatic program. One branch of the Norwegian government actually provided two definitions, one for men and another for women. So, despite these calls for using evidence-based research and developing a broader set of aquatic skills, the vast majority of “pretenders” have clung to the past, content to do the same as their grandparents had. Tradition has continued to reign supreme.

### **Watermanship: All-Around Aquatic Development**

The term, “watermanship,” well known in many English-speaking countries though little used today, as applied to the field of swimming and aquatics, referred to the quality of all-around aquatic skill development. The “watermanship” term, however, can be traced back to the time when the U.K was the pre-eminent seafaring power and London was a major seaport, despite not being located near an ocean. Those who plied the Thames River, freighting goods to and from London, especially transferring goods from large ocean-going vessels to the docks using smaller vessels, were known as “watermen.” They were popularly known as masters of the water (the river). They were said to possess such a broad spectrum of boating skills that they could cope with almost any situation on the water. Hence, they possessed “watermanship” (Sinclair & Henry, 1893; Thomas, 1904).

All-around aquatic skill development has been one of the guiding principles of the Royal Lifesaving Society, UK and most of the RLSS British Commonwealth, the International Scouting organization, the American Red Cross and the Y.M.C.A of the USA. Unfortunately, at the same time, many aquatic organizations and many individuals have bowed to the rivalry between organizations by clinging to traditional practices and believing that “our ‘system’ is better than

yours.” Differences in the content of what was taught grew dramatically, defying consensus on a universal definition of swimming.

### **Water Competence**

In 1995 in their text, *Aquatic Readiness: Developing Water Competence in Young Children*, Langendorfer and Bruya coined the phrase, “water competence.” They saw it as a modernization of and means to make the term, “watermanship,” more inclusive and relevant. They reaffirmed the need for all-around aquatic skill development while also insisting that knowledge and values along with aquatic skills were a part of “water competence.” They described the nine skill components of water competence as separate developmental sequences that could aid instructors in both evaluating competence and promote learner-centered instruction. The term, “water competence,” also offered greater ease of translation to other languages beyond English.

The proposition to embrace “water competence” was the first of three key events that occurred at the close of the previous millennium and the start of the new which dramatically changed my own way of thinking about swimming, aquatics, and drowning prevention. The second event was that I was blessed with the opportunity to become closely acquainted with an international circle of like-minded aquatic colleagues who had already made significant inroads into the general theme of water competence and drowning prevention. One of the activities which pulled this group of people closer together was the initiation of the International Open Water Safety Messages Task Force (2011) which has met regularly during and between the World Congress on Drowning Prevention (WCDP) meetings since Amsterdam in 2002 (Moran, et al., 2012). As we compared ideas and discussed the general notion of the teaching of swimming as one of the most important of the drowning prevention interventions, the ideas, articulated in our paper on water competence that follows this editorial, experienced an acceleration in their development (Moran, Quan, Franklin, & Bennett, 2011). Appropriately, Kevin Moran offered this definition of water competence: “the sum of all aquatic movements which might contribute to the prevention of drowning, as well as the associated water safety knowledge, attitudes, judgment and behavior” (Moran, 2013).

The third event which has accelerated this collaborative process is the recent increase in availability of research evidence which helps us to demonstrate that certain competencies have “protective value.” The primary aim of the subsequent article is to identify the essential competencies based on research evidence which demonstrate protective value for preventing drowning. Scientific evidence also has helped us define “what should be taught” and why. A systematic search of the research literature has led to the comprehensive list of fifteen water competencies we have proposed. The literature also has reinforced the original meaning of water competence as a concept of all-around skill development. The literature has strongly supported the need to integrate the cognitive and the affective domains as integral to water competence. We would not have been able to write this article in such a comprehensive manner earlier simply because much of the most relevant research was not available until the past five to ten years. The article also reflects the change in thinking which has evolved through the cross-fertilization of ideas on an international scale. No longer obsessed with ‘defining’ swimming, we could more freely focus on *what should be taught/learned* in order to reduce the risk of drowning (Moran, 2013). But even more importantly, we could focus on evidence supporting ‘why.’

The concept of water competence continues to be studied, widely-discussed, and increasingly-accepted during the time period spanning the previous three World Conferences on Drowning Prevention. At the Potsdam conference in 2013, a workshop on this theme was held and an international working group was formed to further explore the concept. The article I am introducing with this guest editorial is the product of the efforts of this working group. Certainly we expect it will need adjustments. In fact, even as it first appears in print, new research already is adding to our knowledge. Almost on a daily basis, new research is published which modifies our thinking. But the die is cast. Water competence, describing what should be taught and learned as well as why is here to stay.

### Conclusion

A key to understanding the concept of water competence is to acknowledge that it is indeed possible to identify the most essential competencies which can reduce the risk of drowning in any individual. Research helps us to demonstrate protective value. The acceptance of drowning prevention as a primary goal of all aquatic educational efforts provides a foundation. Water competence reaffirms the need for all-around aquatic skill development along with the integration of both affective and cognitive competencies. We must continue to promote research which can help us to better understand the mechanisms of drowning and of its prevention. We must anticipate adjustments to the current concept as new evidence accumulates. We also reaffirm our continued belief that the teaching of water competencies is a powerful tool in drowning prevention. As this approach gains greater acceptance, we can predict a growing consensus in learn-to-swim program content while encouraging a diversity of pedagogical approaches.

There remain important next steps that we have not articulated in the paper. We need to create a bank of concrete learning outcomes derived from the collective competencies (much of this exists; it remains to gather them under the water competence umbrella while conducting research to fill in the blanks). And from the learning outcome framework, we expect researchers and practitioners to collaborate in creating and experimenting with the efficacies of teaching pedagogies including valid developmental progressions. Finally, these pedagogies and progressions need to be tested against the real life outcome of reduced drowning statistics.

I truly believe the paradigm shift I have described in this editorial was inevitable. I am convinced it resulted from the evolution of ideas stimulated by intense international discussion as well as the explosion of recent research evidence available to us. We have thus progressed “from ‘swimming skill’ to ‘water competence’.”

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